



# POORNIMA

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## GROUP OF INSTITUTIONS

19<sup>th</sup> January 2017

### DEPARTMENT OF MECHANICAL ENGINEERING

#### **A brief report on the workshop on CNC machine and robotics**

The Department of Mechanical Engineering, Poornima Group of Institutions, Jaipur organized a workshop on CNC machine and robotics from 17<sup>th</sup> January' 16 to 19<sup>th</sup> January' 16 for the students of the department itself.

The main objective of the workshop was not only to teach the students on how to operate a CNC machine and how to do programming for a robot, but also to make them aware of the newer machining technologies.

The workshop was carried out in three days. The first day witnessed an inaugural session in which a warm introduction about the topic is being delivered by **Dr. B.K Sharma**, Principal, Poornima Group of Institutions and **Mr. Ashwani Kapoor**, Head of the department of mechanical engineering, Poornima Group of Institutions. After that all the students went out for a department photograph.

After the photography session, a power point presentation was shown to the students by **Mr. Ashwani Kapoor** in order to teach some basics about the CNC machine and Robotics. With the help of the power point presentation students got to learn about how to perform coding in a CNC machine so as to make a desired object and also all the basic knowledge regarding the topic. **Mr. Ashwani Kapoor** illustrated each and every concept briefly so that the students can become familiar with the CNC machines and can code easily for any object. Finally, after three hours long session, the first day of the workshop came to an end. Now coming to the next day of the workshop. On the second day **Mr. Ashwani Kapoor** illustrated about the Robotics and its applications briefly in the seminar hall with the help of a power point presentation. The students were then divided

into 3 groups namely Group 1<sup>st</sup>, Group 2<sup>nd</sup> and Group 3<sup>rd</sup> respectively. The students of Group 1<sup>st</sup> were then went to the computer labs in order to perform coding for their respective objects. While the students of Group 2<sup>nd</sup> went to learn how to do programming in robots like edge follower, obstacle avoider, distance calculator etc. And the students of 3<sup>rd</sup> group went to the CNC lab in order to learn how to run a CNC machine. Participation of the students was in a very positive manner. **Mr. Buddhi Prakash panwar**, Assistant professor, department of mechanical engineering guided the students about the software Cut viewer mill in the computer lab to the respective groups. **Mr. Rahul Sharma**, Assistant professor, department of mechanical engineering was there in the CNC lab to illustrate the students of the respective group on how to operate the CNC machines. **Mr. Ashwani Kapoor** guided the students to program the robots in the Qu-Bot software in the respective lab. After 2 hours when the desired objective of students of the respective groups was achieved, they interchanged their labs and moves further. After 4 hours of long session the second day too came to an end.

Now coming to the final day of the workshop. The students continued their operation which had left out on the 2<sup>nd</sup> day. And after that again an interchanging of the lab takes place for the final time between the groups. With this, all the 3 groups had finished off with all of their labs.

After this, all the students went to the seminar hall for a validatory session. In that session, students were invited on the stage to give their feedback and suggestions regarding the workshop and also what they had earned from this 3-day workshop on CNC machines and Robotics. Few of the teachers had also given their feedback and their suggestions regarding the workshop. At last **Dr. BK Sharma** and **Mr. Ashwani Kapoor** delivered their key notes regarding the workshop. With this, the workshop concludes. This was a very new experience for all of the students and also they got to learn many new things regarding their field.

